

Needle Rock Point Groundwater Basin

- Groundwater Basin Number: 3-52
- County: Santa Cruz
- Surface Area: 480 acres (1 square mile)

Basin Boundaries and Hydrology

Needle Rock Point Groundwater Basin is comprised of marine terrace deposits generally seaward (south) of Highway 1 to the Pacific Ocean near Needle Rock Point. Elevation ranges from 60 to 100 feet above sea level. The marine terrace deposits are Pleistocene in age and are surrounded by Middle Miocene Marine rocks (Jennings 1958). The basin boundary confidence is considered low due to undetermined depth of the terrace deposits and the lack of information regarding groundwater occurrence or movement. Average precipitation values are approximately 29 inches.

Hydrogeologic Information

Water Bearing Formations

No specific published information on the water bearing units was found. A review of San Joaquin District well completion report files found fourteen well reports in the basin. Depths of these wells ranged from 112 to 850 feet below the land surface and averaged 310 feet deep. The well records show unconsolidated material (sands, silts, clays and gravels) to an average depth of 250 feet with hard rock below this depth. Seven well reports listed well yields. These yields ranged from 200 to 450 gallons per minute and averaged 319 gallons per minute. Of the fourteen wells in the basin, eleven are reported as being used for irrigation, one for domestic uses and two were test holes.

Groundwater Level Trends

Water level data found was limited to depth to water at the time wells were drilled and varied over the years. Water levels ranged from 20 to 145 feet. No information on the groundwater level trends is available.

Groundwater Storage

No information on groundwater storage was found.

Groundwater Budget (Type C)

There is no information to provide an estimate of this basin's budget.

Groundwater Quality

No information on groundwater quality was found. Seawater intrusion is a likely hazard within this basin due to the proximity of the ocean.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: 200 – 450	Average: 320 (6 wells)
Total depths (ft)		
Domestic	One well at 300	Average:
Municipal/Irrigation	Range: 112 - 850	Average: 333 (11 wells)

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
	Groundwater levels	0
	Miscellaneous water quality	0
Department of Health Services and cooperators	Title 22 water quality	0

Basin Management

Groundwater management:	None
Water agencies	
Public	None
Private	None

References Cited

California Department of Water Resources (DWR), San Joaquin District. Well completion report files.

Jennings, Charles W. and Rudolph G. Strand (compilers). 1958. Santa Cruz Sheet of *Geologic Map of California*. California Division of Mines and Geology (CDMG). Scale 1:250,000.

Errata

Changes made to the basin description will be noted here.